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SPECIFICATION FOR BLEND COMPOSITIONS OF TEXTILES

(First Reprint MARCH 1997)

UDC 677.014.2/.3-489

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 2 *August* 1985

Indian Standard

SPECIFICATION FOR BLEND COMPOSITIONS OF TEXTILES

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(*Continued on page* 8)

Indian Standard

SPECIFICATION FOR BLEND COMPOSITIONS OF TEXTILES

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 15 March 1985, after the draft finalized by the Cotton and Cotton Products Sectional Committee had been approved by the Textile Division Council.

0.2 Two or more different types of fibres are mixed with one another for producing a variety of textiles. Such a mixture may be composed of different types of man-made fibres or different types of natural fibres or both. The composition of textile fibres is governed by the ultimate use to which the textile material is put.

0.3 Blend compositions are marked in various forms and the consumer is often mislead by the various terms stamped by the manufacturer on the yarn, cloth and garments. It has, therefore necessitated, the formulation of standard on the blend composition for declaration of blend composition which would help the consumers.

0.4 In the preparation of this standard due consideration has been given to Cotton Textiles (Control) Order 1948 and the rules framed thereunder. However, this standard is subject to the restrictions imposed under these, wherever applicable.

0.5 The use of generic names of individual fibres, such as polyester, nylon (polyamide), cotton, is recommended in this standard.

0.6 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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*Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard prescribes the requirements of blend compositions of various textiles (yarns, fabrics and garments) and the method of marking or labelling in respect of various fibres used in blends. The methods of testing the blends are also given in this standard.

2. REQUIREMENTS OF BLEND COMPOSITION OF TEXTILES

2.1 The most commonly used blend compositions are given in Table 1. The tolerance as given in **2.2** shall be permitted.

TABLE 1 SOME TYPICAL BLEND COMPOSITION

SL No.	PERCENTAGE COMPOSITION IN BLENDS		
(1)	(2)	(3)	(4)
i)	Polyester 67	Cotton 33	—
ii)	Polyester 80	Polynosic/Cotton 20	—
iii)	Wool 67	Polyamide 33	—
iv)	Polyester 45	Polynosic 30	Viscose 25
v)	Acrylic 55	Wool 45	—
vi)	Wool 67	Cotton 33	—
vii)	Viscose 52	Polyester 48	—
viii)	Polyester 55	Wool 45	—
ix)	Viscose 85	Polyester 15	—
x)	Polyester 70	Wool 30	—

2.1.1 The composition of blends in cloth and garments which are not covered by the above varieties, may be as declared by the manufacturer subject to the tolerance as specified in **2.2**. The percentage of individual fibre in the blend shall be expressed as percentage of the total fibre content by mass (*see* Note), of both warp and weft in the cloth put together.

NOTE — The percentages of components shall be calculated on dry mass basis.

2.2 Tolerance — The tolerance as given below shall be permitted on individual component:

	Tolerance
Percentage of blend composition	± 3

NOTE — The tolerance shall be applied to major component of blend and the second component shall be found out by subtraction. In case the mixture is of more than two components, the tolerances given above shall be applied to components in descending order and the last component shall be found out by subtraction.

AMENDMENT NO. 1 MAY 1991
TO
IS 11195 : 1985 SPECIFICATION FOR BLEND COMPOSITIONS OF TEXTILES

(*This amendment is being issued to remove the ambiguity in interpretation of test results and aligning the tolerances as prevalent in the textile industry.*)

(*Page* 4, *clause* **2.1.1**) — Substitute the following for the existing clause and delete the Note under the clause:

'**2.1.1** The composition of blends in yarns, fabrics and garments which are not covered by the above varieties, may be as declared by the manufacturer subject to the tolerance as specified in **2.2**. The percentage of individual fibre in the blend shall be expressed as percentage of the total fibre content by mass when calculated by applying the commercial moisture regain values. The relevant Indian Standards listed in **3.2** shall be used for calculating the blend compositions. In case of fabrics/garments the percentage of the total fibre contents/mass shall be calculated both warp and weft put together.'

(*Page* 4, *clause* **2.2**, *informal table*) — Under 'Tolerance' substitute '+2 units' *for* '+3 units'.

(*Page* 5, *clause* **3.2**) – Substitute the following for the existing matter:

'**3.2** Any of the following Indian Standards on the methods of test for quantitative chemical analysis of mixtures of fibres shall be used as applicable:

IS 1564 : 1988 Method for quantitative chemical analysis of binary mixtures of cellulose triacetate and certain other fibres (*first revision*)

IS 1889 Method for quantitative chemical analysis of binary mixture of regenerated cellulose fibres and cotton:

(Part 1) : 1976 Sodium zincate method (*first revision*)

(Part 2) : 1976 Cadoxen solvent method (*first revision*)

(Part 3) : 1979 Formic acid-zinc chloride method (*first revision*)

(Part 4) : 1979 Sulphuric acid method (*first revision*)

IS 2005 : 1988 Method for quantitative chemical analysis of binary mixtures of nylon 6 and nylon 6·6 fibres and certain other fibres (*first revision*)

IS 2006 : 1988 Methods for quantitative chemical analysis of binary mixtures of protein fibres and certain other fibres (*first revision*)

IS 2176 : 1988 Method for quantitative chemical analysis of binary mixtures of cellulose acetate and certain other fibres (*first revision*)

IS 2177 : 1988 Method for quantitative chemical analysis of mixtures of cellulose triacetate and secondary cellulose acetate fibres (*first revision*)

IS 2727 : 1964 Method for quantitative chemical analysis of binary mixture of manila and sisal fibres

IS 3416 : 1988 Method for quantitative chemical analysis of mixtures of polyester fibres with cotton or regenerated cellulose (*second revision*)

IS 3421 : 1988 Method for quantitative chemical analysis of binary mixtures of acrylic, modacrylic and certain other fibres (*first revision*)

IS 6503 : 1988 Method for quantitative chemical analysis of ternary mixtures of protein fibres, nylon 6 or nylon 6·6, and certain other fibres (*first revision*)

IS 6504 : 1979 Method for quantitative chemical analysis of ternary mixtures of viscose rayon, cotton and protein fibres (*first revision*)

IS 6570 : 1972 Method for quantitative chemical analysis of binary mixtures of jute and animal fibres

IS 9889 : 1988 Method for quantitative chemical analysis of binary mixtures of silk and wool or hair (*first revision*)

IS 9896 : 1981 Methods for quantitative chemical anaylsis of mixtures of polyolefin fibres and other fibres

IS 11870 : 1986 Methods for quantitative chemical analysis of binary mixtures of polypropylene and polyethylene fibres'

[*Page* 6, *clause* **4.4** (a)]— Substitute the following for the existing item:

'a) Indication of the source of manufacture;'

(*Page* 7, *clause* 4.5) — Substitute of following for the existing clause:

'4.5 The yarns, fabrics or garments may also be marked with the Standard Mark.

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.'

(TXD 2)

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3. TESTS

3.1 Before conducting an analysis according to the methods given below, the fibres present in the mixture should be indentified (*see* IS : 667-1981*) and the sample analysed shall be freed from all nonfibrous matter (*see* IS : 9068-1979†). Dye or pigment in the dyed or printed fabrics is considered to be an integral part of the fibre and is not to be removed.

3.2 Any of the following standards on methods of tests for quantitative chemical analysis of mixtures of fibres shall be used as applicable:

IS : 1564-1962 Method for quantitative chemical analysis of binary mixtures of cellulose triacetate and certain other fibres

IS : 1889 Method for quantitative chemical analysis of binary mixtures of regenerated cellulose fibres and cotton :

  (Part I)-1976 Sodium zincate method (*first revision*)
  (Part II)-1976 Cadoxen solvent method
  (Part III)-1979 Formic acid-zinc chloride method
  (Part IV)-1979 Sulphuric acid method

IS : 2005-1962 Method for quantitative chemical analysis of binary mixtures of polyamide fibres and certain other fibres

IS : 2006-1978 Methods for quantitative chemical analysis of binary mixtures of protein fibres and certain other fibres (*first revision*)

IS : 2176-1962 Method for quantitative chemical analysis of binary mixtures of secondary cellulose acetate and certain other fibres

IS : 2177-1962 Method for quantitative chemical analysis of mixtures of cellulose triacetate and secondary cellulose acetate fibres

IS : 2727-1964 Method for quantitative chemical analysis of binary mixture of manila and sisal fibres

IS : 3416-1966 Method for quantitative chemical analysis of mixtures of polyester fibres with cotton or regenerated cellulose

IS : 3421-1966 Method for quantitative chemical analysis of binary mixtures of acrylic and certain other fibres

IS : 6503-1972 Method for quantitative chemical analysis of ternary mixtures of protein fibres, nylon 6 or nylon 6·6, and certain other fibres

IS : 6504-1972 Method for quantitative chemical analysis of ternary mixtures of viscose rayon, cotton and protein fibres

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*Methods for identification of textile fibres (*first revision*).

†Recommended methods for the removal of nonfibrous matter prior to quantitative analysis of fibres mixtures.

IS : 6570-1972 Method for quantitative chemical analysis of binary mixtures of jute and animal fibres

IS : 9889-1981 Method for quantitative chemical analysis of binary mixtures of silk and wool or hair

IS : 9896-1981 Methods for quantitative chemical analysis of mixtures of polyolefin fibres and other fibres

3.3 The method used in the analysis shall be reported in the final report.

4. MARKING AND LABELLING

4.1 Each piece of cloth or package of yarn shall be marked with the words ' BLENDED FABRIC ' or ' BLENDED YARN ' as the case may be. The percentage of fibre shall be marked in descending order of fibre content. In case of garments, the garment shall have a permanently sewn-on printed or woven labels indicating the percentage of fibres in descending order of fibre content.

4.2 The size of the letters shall be not less than 6 mm in height when printed or woven on the selvedges or the labels of garments. On the face of the fabrics the size of letters shall be not less than 10 mm in height and stamped at a prominent place and shall be easily readable.

NOTE — A series of typical standard markings is given below:

' BLENDED YARN — 67% Polyester 33% Cotton '
' BLENDED FABRIC — 52% Polyester 33% Cotton 15% Polynosic '
' GARMENT — 67% Polyester 33% Cotton '
52% Polynosic 48% Cotton '

4.3 The cloth and garments may also be marked with care labelling as per IS : 4418-1967* to provide the necessary guidance to consumers in washing, drying, etc. The manufacturer may also arrange for leaflets covering instructions for care maintenance of textiles.

4.4 The blended fabric or garment shall be marked with the following:

a) Manufacturers' name, initials or trade-mark;

b) The blend composition (*see* **4.1** and **4.2**); and

c) Month and year of manufacture.

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*Guide for care-labelling of textiles for laundering and dry-cleaning.

4.5 The yarn, cloth or garments may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

5. PACKING

5.1 The cloth shall be packed in bales or case in conformity with the procedure laid down either in IS : 2194-1963* or in IS : 2195-1964† as agreed to between the buyer and the seller.

6. SAMPLING

6.1 For ascertaining the conformity for the blend composition in textiles the sampling procedure given in IS : 5463-1963‡ or as agreed to between the buyer and the seller shall be followed.

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*Code for seaworthy packaging of man-made fibre fabrics.

†Code for inland packaging of man-made fibre fabrics and man-made fibre yarn.

‡Methods for sampling of cotton fabrics for chemical tests.

(*Continued from page* 2)

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